CENTERVIEW

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

January 13, 2014

SICU staff, including Amy Mayhue, left, and Courtney Anders, right, help get Meeka Reed up and walking.

INTENSIVE THERAPY

ICUs bring on full-time PTs/OTs to get patients stronger, faster

By Matt Westerfield

Nurses and therapists cheered on Meeka Reed of Jackson as she walked down the hallway of the Surgical ICU last week.

She had been in bed for almost two weeks following surgery for an infection in her jaw. She was weak, but she walked with the aid of occupational and physical therapists and a patient-lifting device. Not only that, she did it while on a ventilator.

As patients in intensive care units often are sedated and on bed rest for long periods of time, the more movement and mobility health-care providers can help them achieve, the better. But ambulating a ventilated patient in the SICU is a milestone, according to nurse manager Kim Dukes Horn.

CONTINUED ON PAGE 2 →

Stamping out tobacco **p. 3** | 18 months post-Epic **pp. 4-5** | Burgeoning leaders **p. 6**

CREWSING to RETIREMENT

Longtime SOD faculty, tobacco cessation champion leaves public health legacy

By Matt Westerfield

One day in 1998, soon after the landmark Tobacco Master Settlement Agreement was signed, Dr. Karen Crews was working in the Diagnostic Sciences Clinic at the University of Mississippi Medical Center's School of Dentistry when she got a call from Mike Moore, then-attorney general of Mississippi.

"He said, 'I heard that you were very interested in helping people quit smoking. Why don't you come talk to me about it?'" Crews said, recalling her surprise.

Hunter, left, and Crews

Crews did meet with Moore, then with key folks around the Medical Center — including Dr. Wallace Conerly, then-vice chancellor for health affairs — and soon after the ACT Center for Tobacco Treatment, Education and Research was born in 1999.

That's just one of the hallmarks of Crews' career at UMMC. The professor of dentistry, director of oral oncology and bio-behavioral medicine and director of the ACT Center retires this month.

After graduating from the School of Dentistry in 1986 and joining the faculty two years later, Crews will leave the Medical Center for a new challenge: taking a stab at private practice on the Gulf Coast. And, in a curious coincidence, her longtime confidant, Debbra Hunter, is retiring at the same time.

Hunter joined the dental school in 1987 as an administrative assistant and helped Crews write the ACT Center grant. She has since served as director of clinical operations for the ACT Center for 10 years.

"This is the person who has been by my side for all of these projects, the person who did the budgets, who always said, 'you can do it,'" Crews said. "I'm very proud of what she's done."

Hailing from McComb and later Mississippi State University, Crews said she was inspired to become a dentist by her hometown dentist as a child. Dedicated to public health, she worked at the Rankin County Correctional Facility for two years after graduation before a friend on the SOD faculty encouraged her to consider academic dentistry — that and the fact that she ran a tobacco-prevention research project at the prison.

"I got the bug about tobacco because of a research project I conducted under the mentorship of Dr.'s Sig Krolls and Stephen Silberman. I did a 10 percent random sample on the entire population, and what we found was that 85-88 percent of the inmates were smokers," she said.

Once on faculty, Crews worked with two area nuns to launch the Sister Robin Dental Clinic for the Homeless in Jackson.

"That really taught me a lot about humanity and why it was so important to give back," she said.

Crews ran the clinic during the next decade while also becoming the School of Dentistry's first woman to make full professor and the school's first female dean – as assistant dean for extramural programs and institutional advancement.

Then came the call from Moore.

"It was a huge responsibility," she said of obtaining the $3.5 million ACT Center grant. "So I partnered with other people. I had to really look at not just focusing on the patients I treated every day, but how we were going to impact the hundreds of thousands of Mississippians out there who use tobacco.

"I was really given the opportunity to think of this on a statewide scale."

In addition to Hunter, Crews found a key ally in Dr. Tom Payne, who at the time was a clinical psychologist who had created a tobacco-treatment program at the VA Medical Center. Payne co-wrote teh grant and has since served as associate director of the ACT Center and will continue to lead the program.

On top of the tobacco-treatment project, Crews was approached by Dr. Scott Stringer, professor and chair of otolaryngology, to eventually develop an oral oncology program at the Jackson Medical Mall Thad Cochran Center in 2005, an effort which required heavy support from both the School of Dentistry and the School of Medicine. Crews said she learned a lot about leadership working with Stringer and was one of the highlights of her career.

Dr. Harold Kolodney, professor of dentistry and former president of the Mississippi Dental Association who taught Crews while she was in dental school, will succeed her as director of the clinic. In turn, Crews and her husband are planning to move to Gulfport, where she will partner with a former student of hers, Dr. Andrea Elenbaas, who graduated in 1996. And Crews' longtime compatriot, Hunter, plans to remain with the ACT Center on a part-time basis.

"We just developed a great relationship over that period of time," said Hunter. "She's just a great person." CV

CENTERVIEW January 13, 2014

Published by the Division of Public Affairs at the University of Mississippi Medical Center

Chancellor University of Mississippi:
Dan Jones, M.D.

Vice Chancellor for Health Affairs:
James E. Keeton, M.D.

Chief Public Affairs and Communications Officer:
Tom Fortner

Editor:
Bruce Coleman

Staff Writers:
Jen Hospodor, Jack Mazurak, Gary Pettus, Matt Westerfield

Lead Designer:
Derrick Dyess

Photographer:
Jay Ferchaud, Marc Rolph

Support Staff:
Lynn Griffin, Peggy Wagner

To browse archives or read the most current CenterView, visit the Public Affairs website
www.umc.edu/centerview

— *CenterView* is printed by the UMMC Department of Printing —

For more news and information of interest to the Medical Center family, visit Public Affairs online (www.umc.edu/publicaffairs)

CenterView, published every other week, is the internal publication of the University of Mississippi Medical Center, the state's only academic health sciences center. Content features news of interest for and about Medical Center faculty, staff and students. Content may be reprinted with appropriate credit. Ideas for stories are welcome and may be submitted by e-mail to bcoleman@umc.edu or delivered to:

Division of Public Affairs
The University of Mississippi Medical Center
2500 North State Street, Jackson, MS 39216-4505
(601) 984-1100

Connect with us via social media:

/UMMC1 @UMMCNews @UMMCNews

REFRESHING SUPPORT

Committee unveils holistic approach to curbing tobacco use on campus

By Bruce Coleman

A forthcoming initiative by an anti-tobacco leadership team seeks to put more teeth into the University of Mississippi Medical Center's existing no-smoking policy.

The multidisciplinary Use of Tobacco Products on Campus Advisory Committee will soon launch a strategy to better maintain procedures that, for many institutions across the nation with similar policies, have been difficult to enforce.

According to Michael Estes, chief human resources officer who chairs the committee, a more holistic approach will be implemented at UMMC to help guide individuals who struggle with the strict anti-tobacco policy to more healthful solutions.

"The whole focus of this effort is to put a lot of energy into communication, education and available resources," said Estes, "but, if needed, we're going to manage enforcement more than ever before."

Estes

The Medical Center's ban on tobacco dates back to January 2007, when, as part of a broader Mississippi Hospital Association initiative, UMMC became the first Mississippi Institutions of Higher Learning member to receive the state's official tobacco-free campus designation.

But Estes said the designation failed to get a lot of traction and the Medical Center's policy floundered fairly quickly.

"Over the years, we continued to have violations of the policy by employees, staff, patients and visitors," he said.

A little more than a year ago, Dr. James Keeton, vice chancellor for health affairs, urged the formation of the advisory committee to develop a framework by which the institution could better address violations of the policy. Consisting of institutional leaders from a cross-section of Medical Center departments and representatives from the Mississippi Department of Health, the committee suggested a four-pronged approach endorsed by Keeton that is designed to stem the tide of tobacco on campus:

• Communication

Physical Facilities will place new signage around the Medical Center campus to notify patients and visitors of the institution's anti-tobacco policy.

Public Affairs also will periodically use internal communications vehicles, such as the Intranet News Feed and its This Week at UMMC e-newsletter, to remind UMMC employees of the policy.

• Education

Dr. Karen Crews, professor of dentistry, and Dr. Tom Payne, professor of otolaryngology and communicative sciences, have worked in tandem with the UMMC Tobacco-free Initiative to develop and implement a comprehensive training program for medical, dental, pharmacy, nursing and health related professions staff, residents and student health-care providers on the UMMC campus.

Crews said the education component consists of evidence-based training in the treatment of tobacco dependence that includes brief intervention, motivational interviewing and pharmacotherapy.

"Plans are to collaborate with the UMMC health professions schools to ensure that students obtain the skills needed to treat tobacco-using patients prior to entering the work force," Crews said.

In addition to the training, Crews and Payne have met with hospital administrators to assist with planning for the implementation of the Joint Commission core measure "Treatment of Tobacco Dependence." They also have received funding from the health department to provide resources for the program and tobacco education materials to be distributed on campus.

Crews said a full-time tobacco treatment specialist will be hired to assist with inpatient consultation for tobacco-using patients.

"The effort is ongoing and will result in a healthier campus, city and state as UMMC leads the way for other hospitals to comprehensively address the number one cause of morbidity and mortality in Mississippi," she said.

• Resources

Located in the Jackson Medical Mall Thad Cochran Center, the ACT Center continues to be the primary tobacco cessation resource for the institution. Primarily funded by the Mississippi State Legislature and the Mississippi State Department of Health, the center offers state-of-the-art treatments to help individuals who use tobacco achieve long-term abstinence.

• Enforcement

For the first time at UMMC, tobacco "monitors" will engage violators of the anti-tobacco policy and offer tobacco-cessation resources. They will distribute information about nicotine replacement products and other available alternatives to tobacco use.

"Their first interaction will be to walk up to violators and respectfully remind them that we are a tobacco-free campus," Estes said. "They will ask the violators to extinguish their cigarette, and we're trusting that they will be compliant."

Although the monitors will patrol the entire campus, they will concentrate on those areas where tobacco use has been known to occur. Should the monitors encounter belligerent violators of the policy, Estes said they will have the authority to contact Campus Police to handle the matter.

Should the violators be Medical Center employees, Estes said the institution's progressive discipline approach will be used to ensure compliance.

"It's our hope that people will understand we really are serious about this, and we'll see a shift in the culture here on our campus," Estes said.

The advisory committee's recommendations don't end with an internal approach to anti-tobacco policy enforcement. Estes said early this year, Medical Center leaders will join representatives from the health department, the National Lung Association, the National Heart Association, Mississippi Baptist Medical Center and St. Dominic Hospital to negotiate with the Jackson City Council a modification of an existing ordinance that would create "smoke-free" zones around all three hospitals that would extend 50 yards beyond their property lines.

The ordinance also would grant UMMC Campus Police officers the authority to issue citations to individuals who violate the Medical Center's anti-tobacco policy.

"We feel we have a pretty compelling argument," Estes said. "It would allow us to authorize our police department to give citations to people who are smoking on the sidewalks outside the hospital.

"With the coalition we have supporting this revision, we think it will make it almost impossible for the city council not to modify the ordinance." CV

Epic Evolution

UMMC gets high marks for EHR implementation, integration; still more to do

By Bruce Coleman

It was the most comprehensive systems implementation in the history of the University of Mississippi Medical Center, and it impacted health-care delivery like nothing the UMMC community had ever seen.

The organization-wide launch of the Medical Center's electronic health records system on June 1, 2012, involved more than 800 support personnel, including virtually every Division of Information Systems staff member, and impacted more than 3,000 UMMC employees – practically everyone who has a role in providing health care at the institution.

It was, indeed, "Epic" in every sense of the word.

Eighteen months after "Go-Live" – the day the electronic health records switch was irrevocably flipped at UMMC – EHR has transitioned into the Medical Center's culture so seamlessly that patients have come to view computers, tablets and smartphones no differently than stethoscopes, blood pressure cuffs and IV poles as typical tools of the medical trade.

Now, those responsible for helping take Epic from "sci-fi spectacular" to common vernacular describe the EHR's current impact on the organization and lessons learned from the implementation.

Preparation and Support

Were they to do it again, the Epic training team might have taken a less-generic approach to staff preparation, according to Ellen Swoger, chief applications officer.

Swoger

But considering the challenges involved with not only introducing a comprehensive electronic health records system to an organization as vast and diverse as the Medical Center, but also helping employees become proficient enough to use it in a matter of weeks, she said the results could be considered no less than phenomenal.

"This was a monster effort," Swoger said. "We could have focused on the specific day-in-the-life needs of each clinic, have the training team make a more conscious effort to make it more realistic.

"But when you do a huge rollout that affects so many different clinical specialties, it's very difficult to try to make the training very specific."

The success of the initial Epic training had a lot to do with staff accountability, Swoger said.

"The training reached out to every area, but it was more successful in those areas that had accepted it and were interested in it," she said. "When we went live, you could definitely tell which areas had embraced it more than others. They stepped back, looked at the workflows in their department, took ownership and asked questions.

"All in all, it was well done based on how specific end-users took the training and ran with it."

Now the challenge facing the Epic training team lies in re-invigorating the "super-user" program. Super-users are UMMC employees who have received more specialized EHR training. Imbedded into various departments and units throughout the Medical Center, these super-users lend on-site assistance to those just becoming familiar with Epic and serve as ongoing liaisons between the DIS Epic team and their departmental staff.

"Most of the original super-users have either transitioned out of their roles or have been assimilated into other areas," Swoger said. "We've had to make it (the super-user program) much more of an ongoing commitment, make this a more dedicated role within their current positions."

Swoger said wider acceptance of electronic health records in the medical community and revisions to the Epic training program has helped move EHR education forward rather rapidly.

"Epic training is really very different now," she said. "When a new employee comes in, most of their training is done in their department by credentialed trainers. Instructional designers – the new term for Epic principal trainers – provide the latest and greatest information on the current Epic applications, upgrades and modify curriculum for the credentialed trainers who train the staff.

"This training process also continues to ensure that an individual is proficient in an application before they get a login (to use the application)."

Despite the constant turnover in the super-user program, Swoger said the Epic training curriculum remains stable yet malleable to workflow changes, module adjustments and inevitable upgrades.

"I think the organization has kept up with all that overwhelming change pretty well," Swoger said. "I know we're much more ready than if we'd stayed with the applications that we had 18 months ago."

Provider Acceptance

Physicians don't always have the best reputation when it comes to adapting to change – especially change as fundamental and overwhelming as EHR.

But one of the main keys to the successful integration of Epic at the Medical Center has been the medical staff's willingness to embrace Epic, said Dr. John Showalter, assistant professor of medicine and chief medical information officer.

Showalter

"There are things we are definitely still working on to get implemented into the workflow," Showalter said. "We've had some really meaningful but moderate clinical gains."

For example, Showalter said Epic recently added automatically generated reminders for clinical staff about preventive clinical screenings for certain qualified patients. Although an excellent function, he said it creates a more challenging workflow when a couple hundred more patients each year get scheduled to receive mammograms, colonoscopies or other screening tests.

On the other hand, by recording their patient encounters directly into Epic rather than speaking into a telephone for future transcription, physicians have reduced dictation costs from approximately $2 million a year to $250,000 – and the clinic notes are much more readily available.

"Across the board, physicians have adapted to the new technology really well," Showalter said. "The main thing we're looking to improve is the efficiency of the practice, which is a good place to be, considering many institutions are just trying to get their physicians to use the technology.

"We definitely had some physicians who were very concerned about the technology (at Epic Go-Live), but they embraced it and use it effectively."

So effectively, in fact, that the Medical Center is one of only 15 health systems in the nation to attain a 6 or better score out of a possible 7 in both the inpatient and ambulatory categories of the Health Information Management Systems Security's national scale.

"That's objective criteria from an external report, and it shows our physicians are some of the best users of EHR in the country," Showalter said. "We thought we could be able to achieve that within the first year, but we were able to achieve it nine months after Go-Live."

The obvious goal for the next 18 months, Showalter said, is becoming one of only three institutions in the country to receive a perfect 7 in both categories.

"We are right on the cusp," he said. "This was achievable because of the way our medical staff continues to respond to challenges. They are very engaged and extremely willing to make the changes that are required of them."

Quality and Safety

One of the major selling points of any electronic health records system is its capacity to reduce medical errors, thereby enhancing the patients' experience.

Epic has undeniably achieved both, according to information provided by Christina York, hospital pharmacist.

At a recent University Hospitals and Health System leadership meeting, York presented findings from a recently completed Epic study that indicated the total number of reported medication errors have decreased by 39 percent since the implementation of EHR.

"Medication errors are associated with increased cost, increased patient length-of-stay and potential further monitoring or treatment to reverse the effects of the medication error," said York, who compared Epic data taken eight months preceding the Go-Live to post-implementation statistics generated from four months after the EHR had been up and running. "They can have a significant impact on patient satisfaction."

The results of the study, she said, were quite telling.

Since Epic has the capability of sending immediate alerts for potential medication conflicts – such as duplicate prescriptions or possible patient allergies – and because pharmacists no longer have to transcribe physicians' orders, York's study indicated a 48 percent reduction in prescribing errors and a whopping 95 percent reduction in transcription/verification errors.

She said another component of EHR at the Medical Center that has shown by the study to improve patient safety is bedside barcode scanning.

"The nurse or therapist scans the barcode on the patient's wristband, scans the medication, and if it's the wrong drug, the wrong patient or the wrong time, it flags them," York said. "There's a direct correlation – as our compliance with barcode scanning increased (from just above 60 percent to approximately 90 percent in 12 months), the number of wrong-drug, wrong-patient errors consistently decreased."

Not only has the overall percentage of reported medication errors plummeted, so, too, has the number of errors that actually reached the patient.

"We have seen a strong reduction in errors with Harm Scores of 3," she said. "Errors that reached the patient have been reduced by 37 percent from eight months pre-Epic to 16 months post-Epic."

Despite the statistical improvements, York, who recently left UMMC, said the study underscores the need for clinical staff to continue to report medication errors and to communicate with the Epic training team to improve the patient safety process.

"We see that this technology is helping to reduce errors by augmenting what clinical staff do and adding another level of safety," she said. "The front-line staff have been through a lot with the Epic implementation and barcode scanning, and the results show that their work is meaningful."

Moving Forward

Despite its impressive strides implementing electronic health records, the institution still has plenty of room for growth in EHR, according to David Chou, chief information officer.

Chou

Chou, who joined the Medical Center more than a year after Go-Live, said he was impressed by the results of the Medical Center's Epic implementation efforts, but further optimization is required to realize significant revenue growth.

"Globally, we did a great job in rolling it out within the original timeframe," he said. "Are we done? No, we're not even close."

He points to a Joint Commission mock survey in November that revealed some deficiencies in how the system is being used as evidence that more training is necessary. And he said a system upgrade scheduled next month also will address some functionality issues within the software and improve workflow.

"Right now, our utilization is at about 45 percent, and we want to get it to 80 percent or better," Chou said. "It's been a pretty good success story so far, and we have the leadership team on hand to make various changes."

Chou said the Epic implementation strategy moving forward will be mobility – whether smartphone, tablet or laptop.

"Mobile devices will get us to the next level," he said. "Doctors will be able to use Epic anywhere, anytime. Staff will use applications outside of Epic."

And he said patients will have even greater access to their health-care information through the MyChart function of Epic, the personalized, secure, online health portal for UMMC patients that has gained in popularity during the last 18 months.

Indeed, Swoger said approximately 15,000 patients have signed up to use MyChart since Epic Go-Live.

"It's incredible how the world has changed with the acceptance of having your personal electronic medical records ready and available," Swoger said. "The providers are more willing to push the results to the patients automatically. It's amazing to see the difference, both on the patients' side and the physicians' side.

"It's a different world." CV

National HIM organization recognizes UMMC for innovative health care

The American Health Information Management Association (AHIMA), the credentialing body for coding, electronic health records and health data analytics, has named the University of Mississippi Medical Center one of four finalists for its second annual Grace Award.

Truman Medical Centers, Kansas City, Mo., received the overall award in October.

Named for AHIMA's founder, Grace Whiting Myers, the award honors health-care delivery organizations that demonstrate effective and innovative approaches in using health information to deliver quality health care.

Leigh Williams, director of revenue cycle, credited the 55 employees in the Health Information Management Department, specifically those in Electronic Health Records, Hospital Coding and Clinical Documentation Improvement, for helping the Medical Center obtain the national notoriety of being a Grace Award finalist.

"AHIMA is our premier professional organization and the Grace Award is the premier award in HIM," Williams said. "To be considered a finalist means our national organization is recognizing our HIM work as some of the best HIM work in the country."

BUCKEYE CONNECTION

Newly hired CEO brings burgeoning executives to fill leadership posts

By Gary Pettus

After Kevin Cook, the University of Mississippi Medical Center's new chief executive officer of adult hospitals, arrived in Jackson, his departure from Toledo, Ohio, wouldn't leave a huge void in the Buckeye State, exactly.

It would leave four.

Here, the erstwhile CEO of several Toledo-area Mercy hospitals recruited a roster of blue-chip executives from his previous employer.

Cook

During the last few months, Cook's efforts have yielded three key administrators: Trish McDaniel, chief operating officer; Kim Meeker, administrator of the Winfred L. Wiser Hospital for Women and Infants; and Pamela Zipperer-Davis, chief ambulatory affairs officer for UMMC and University Physicians.

Cook's recruits, from left, Patrica McDaniel, Kim Meeker and Pamela Zipperer-Davis

"I'm thrilled to have them working here," Cook said. "All have fit in very well."

In turn, each said she joined UMMC in great part because Cook asked. Here's why he did.

Patricia "Trish" McDaniel, chief operating officer

In 1992, Hurricane Andrew destroyed her home in Homestead, Fla., as well as a large part of the city she had lived in for more than 20 years.

"Some of the trees and infrastructure never came back," she said.

The destruction was one reason she decided to leave.

For 25 years, she had worked as a nurse —caring for people had always been important to her and would remain so, particularly in her post-Andrew life.

The year Andrew struck was also the year she earned her master's in nursing administration. That achievement, along with accepting increasingly larger roles at work, would enable her to take a leadership position in Knoxville, Tenn., where she would be closer to home.

She had been brought up in Nashville, Tenn., by parents with high expectations for their three daughters.

"My father was of the World War II generation," she said. "He didn't let any of us off easy, and always pushed career development."

Eventually, in 2012, McDaniel was recruited again, this time by Kevin Cook in Toledo, where her new role embraced areas beyond clinical operations.

After Cook left Toledo for Jackson, a position opened at UMMC that had McDaniel's name on it.

"You look around this campus and you think, 'My gosh; it's huge.' But the people within the walls don't make it feel that way," she said. "It has a small-town feel.

"The pride that people take in this organization is evident everywhere. It was very welcoming."

Arriving here in late November, McDaniel said that as COO, "my job is to make sure everybody can do what they need to do – for our patients."

Pamela Zipperer-Davis, chief ambulatory officer

Her father was a labor leader, her mother a nurse. One was in administration, the other in health care.

"I would help my father campaign for his union's elective offices," she said. "After school, I would go to the hospital with my mother. I did scut work, basically: stocking linen, putting boxes on shelves."

She was 14 when she joined the volunteer hospital work force called Candy Stripers at Good Samaritan Hospital in Cincinnati, where she grew up.

"I loved that job – and I loved health care," she said.

Influenced by both of her parents, Zipperer-Davis wasn't sure which of their careers suited her better. She chose both: "I was always interested in business administration, but to me, health care is a calling."

After earning her master's in hospital administration, she has worked in health care since 1987. In 2006, she met Cook, working with him first in Cincinnati at Mercy Health Partners and again in Toledo for two years starting in 2011. When Cook urged her to join him at UMMC, she did so by early December.

"I felt, not just welcomed here, but wanted," she said. "The spirit here is to do great things for our patients. It's such a great feeling."

Kim Meeker, Wiser Hospital administrator

A friend of hers called to see how her new job was going.

"I said, 'It's exciting, stressful and overwhelming – just like I like it,'" Meeker said.

This is the first academic medical center she's worked for and her first time as an administrator of women and infants' services.

"That's what enticed me here – along with Kevin and Trish," she said.

Brought up in Jackson – Michigan, that is – Meeker felt the influence of her stepfather, Dr. Tom Wilson, a small-community physician who let her work in his office during her high school days. Between high school and college, she worked in a nursing home, where she saw "good people doing the best they could," she said. "But they didn't have a lot of resources.

"That was a moment when I realized that if I did this kind of work one day, I wouldn't want to do it that way."

She started out as a nurse, but decided to move to administration after earning her master's degree.

"I understood that at any moment a member of my family could be in that small-town hospital, and I wanted to help shape that care. Now, I've moved away from my family, but have that same feeling.

"It's not just about your family; it's caring for all families."

At Mercy St. Vincent Medical Center in Toledo, where she worked with Cook, she was vice president of surgical services. Here at UMMC, she also will oversee Wiser's ancillary operations.

"I want to make sure people have everything they need. I want to eliminate barriers." CV

CONTINUED FROM FRONT PAGE →

EARLY MOBILIZATION GOAL OF ENHANCED OT, PT INTENSIVE CARE COVERAGE

"As nurses, we know mobility is very important, but it's not at the forefront of what we do because we're focused on so many other things," Horn said.

Which is why, for the first time at UMMC, the Division of Rehabilitation Services has committed an OT and a PT five days a week to both the SICU and Medical ICU with the goal of promoting early mobilization and getting patients better faster.

"This is the missing piece of the puzzle," Horn said. "She (Reed) is going to be so ahead of the game because of this."

What's more, the concept represents a seamless collaboration between physicians, nurses and therapists.

"The multidisciplinary team discusses the patients each day and uses a protocol to identify the patient's functional mobility level and ability to participate in therapy," said Amy Mayhue, assistant director of occupational therapy and interim assistant director of physical therapy. "Previous to this, therapy saw only select patients identified by the physician, with limited focus on early mobilization in the ICUs."

PT Morgan White, left, Reed and OT Courtney Anders.

Which is to say, Reed would not be getting the same daily level of therapy before this new approach.

"We were trying to see if we could get her off the ventilator, but we couldn't for a couple of reasons," Dr. Liz Robertson said of Reed, who was given a tracheostomy to help her breathe. "But she's awake, and she's been doing exercises since the day she got here to keep her strength up."

Robertson, a critical care fellow, credits Dr. John Porter, chief of trauma/critical care surgery, for initiating the request to have PTs and OTs assigned to the ICU rather than assigned to an individual patient.

"At the same time, Amy Mayhue got a hold of me as the SICU fellow, and we were talking about how to improve things and what we could do," Robertson said. "We sat down and I said, 'I think we all want the same things, but our great barrier is communication.'"

What they came up with was a commitment of one PT and one OT from rehab services staff for both the MICU and SICU for roughly three-month rotations. Robertson said that since the therapists became part of the unit last month, the staff nurses quickly built strong working relationships with them.

Both Robertson and Mayhue say this approach leads to quicker recovery times for the patients and shorter stays in the ICUs.

"Instead of leaving people in bed, we're getting them stronger, faster," Robertson said. "If you took an 18-year-old soldier, put him in bed and didn't let him do some walking, you'd need physical therapy after about 3-5 days to get him walking again. And these people are clearly sicker than a healthy soldier.

"The sooner you can get them moving and exercising, the better they're going to do because once you strengthen their limbs, you strengthen their lungs and their heart."

Previously, there might have been a 12-hour turnaround for getting a therapy consult in the SICU, she said. Now, therapy is much more a part of the critical care process.

"Even when they're on a ventilator and they're intubated, we can start earlier strengthening," said physical therapist Morgan White, who was part of the team helping to get Reed up and moving. "And now we're trying to progress to earlier mobilization because you have to be strong enough to sit up, strong enough to stand."

And that's where the PT and OT complement each other, White said. To put it very simply, the PT works on the legs and the OT works on the arms.

"In situations like these, you can't perform activities of daily living if you can't get out of bed," said occupational therapist Courtney Anders. "You can't dress or feed yourself, you can't go to the bathroom."

> "INSTEAD OF LEAVING PEOPLE IN BED, WE'RE GETTING THEM STRONGER, FASTER."
> –DR. LIZ ROBERTSON

Often, she says, patients they treat are so weak at first they can't even reach a hand to their mouth.

"So one of our goals is just to get them to be able to touch their nose or chin to be able to get them to some form of independence."

The achievement of getting Reed up and walking in her weakened state while on a ventilator was evidence that the approach is already yielding benefits, Mayhue said.

"The success of this patient speaks to the communication and relationship the entire team has built in just one month," she said. CV

Dr. Christian Gomez

IDENTIFYING MARKERS

By Jack Mazurak

Scientists discover protein that could impact prostate cancer care

Researchers at the University of Mississippi Medical Center Cancer Institute recently identified a protein that could help doctors give a clearer prognosis to patients with high-risk prostate cancer.

"Our goal was to identify biomarkers associated with patient survival in prostate cancer," said Dr. Christian Gomez, associate professor of pathology and Cancer Institute researcher.

Biomarkers – such as genes and their product proteins – act as flags to help identify all kinds of specimens and diseases, including subtypes of cancers.

Finding new prostate cancer biomarkers ultimately could improve patient care through better diagnostic methods, predictive models and improved therapies and drugs.

"The idea is you want to be able to tell patients very quickly whether to consider a prostatectomy, to just keep up surveillance, or to go home and forget about it," he said.

Prostate cancer, the second-leading cause of cancer deaths in the U.S., killed nearly 30,000 men last year, according to American Cancer Society estimates. With approximately one in every six U.S. men diagnosed with prostate cancer, and likely many more cases going undetected, medicine needs better tools.

In their research, Gomez and his collaborators at UMMC and the Mayo Clinic figured the low-oxygen environment of prostate cancer tumors might hold clues.

Low oxygen, a condition known as hypoxia, results from tumors' ravenous need for oxygen to support their rapid growth. They hastily build rogue blood vessel networks to feed themselves, but those inefficient networks often provide less oxygen than normal, well-built systems would.

That hypoxic environment can make gene activity go haywire. Like a set of poorly managed checkout lanes in a grocery store, production of proteins in some genes gets amped up way beyond normal, a situation know as over expression. Production in other genes slows to an indifferent shuffle.

Gomez and his team compared gene expression in 100 prostate tumor samples and 71 normal-tissue control samples to narrow a group of more than 500 candidate genes to 24 that are significantly over- or under-expressed in hypoxia. They further whittled the field by correlating the gene candidates with patient survival and Gleason score, a standard evaluative measure in prostate cancer.

Using a Mayo Clinic database, they computer-matched 150 pairs of prostate cancer cases that had similar clinical characteristics and pathological scores, but differed in outcomes – meaning patients either survived or did not. They then tested the matched pairs for levels of proteins encoded by three candidate genes.

"We found that of the three candidates, HURP, a protein encoded by the gene DLG7, had the best predictive value for good outcomes," Gomez said.

The journal Public Library of Science One published his study in December.

The whole area of hypoxia-related genes could be rich ground for researchers to search for other prostate cancer biomarkers, Gomez said. As well, oxygen-sensitive genes could become a target for cancer-fighting drugs and therapies.

"I think we need to reengineer our thought processes and experiments to capture the characteristics in real, live tumors and use those to our benefit," he said.

Since the researchers studied samples and cases from Caucasians in Minnesota, Gomez plans to test the findings in a group of African-American patients in Mississippi, a population that suffers higher death rates from cancer.

> **"Our goal was to identify biomarkers associated with patient survival in prostate cancer."**
> ***— Dr. Christian Gomez***

"We have a fertile landscape to develop these types of studies," he said. "We have one of the most at-risk populations on the planet."

If further testing proves HURP is a viable biomarker, it would give physicians another tool to predict a patient's prognosis.

"With a tumor sample, something that's routinely taken in prostate cancer patients, a hospital laboratory can isolate the RNA from that particular gene," Gomez said.

He also plans to investigate other potential roles of HURP, including whether it plays a part in making tumors more resistant to chemotherapy and radiation treatments and whether it is a biomarker for colorectal cancer. CV